

Serial No. 10/020,077

Page 2 of 11

IN THE CLAIMS**RECEIVED
CENTRAL FAX CENTER****APR 02 2007**

1. (canceled)

2. (previously presented) A communications apparatus for switching among different interfaces and comprising a switch unit, the switch unit comprising:

a main switch for switching data of a fixed length; and

an interface having a first buffer for an input of the main switch and a second buffer for an output of the main switch,

wherein the communications apparatus further comprises a processor that is connected to the switch unit and processes data according to a predetermined protocol, the processor having a third buffer and a fourth buffer connected to the first buffer and the second buffer, the processor performing back pressure control on the third buffer when the first buffer assumes a predetermined state.

3. (previously presented) A communications apparatus for switching among different interfaces and comprising a switch unit, the switch unit comprising:

a main switch for switching data of a fixed length; and

an interface having a first buffer for an input of the main switch and a second buffer for an output of the main switch,

wherein the communications apparatus further comprises a processor that is connected to the switch unit and processes data according to a predetermined protocol, the processor having a third buffer and a fourth buffer connected to the first buffer and the second buffer, the processor

R4206826_1

Serial No. 10/020,077

Page 3 of 11

performing back pressure control on the first buffer when the fourth buffer assumes a predetermined state.

4. (currently amended) A ~~The~~ communications apparatus for ~~switching among different interfaces and comprising a switch unit, the switch unit comprising:~~
~~—— a main switch for switching data of a fixed length; and~~
~~—— an interface having a first buffer for an input of the main switch and a second buffer for an output of the main switch~~ as claimed in claim 2,

wherein ~~a~~ the processor further performs back pressure control on the first buffer when the second buffer assumes a predetermined state.

5. (previously presented) A communications apparatus for switching among different interfaces and comprising a switch unit, the switch unit comprising:

a main switch for switching data of a fixed length; and
an interface having a first buffer for an input of the main switch and a second buffer for an output of the main switch,

wherein the communications apparatus further comprises a processor that is connected to the switch unit and processes data according to a predetermined protocol, the processor having a third buffer and a fourth buffer connected to the first buffer and the second buffer, the processor performing back pressure control on the fourth buffer when receiving a request for back pressure control from an apparatus that is connected to the processor.

84206826_1

Serial No. 10/020,077

Page 4 of 11

6. (original) The communications apparatus as claimed in claim 2, wherein the back pressure control request is formed by a predetermined flow control cell.
7. (original) The communications apparatus as claimed in claim 3, wherein the back pressure control request is formed by a predetermined flow control cell.
8. (original) The communications apparatus as claimed in claim 4, wherein the back pressure control request is formed by a predetermined flow control cell.
9. (original) The communications apparatus as claimed in claim 2, wherein the back pressure control is performed by predetermined Quality of Service (QoS) class units.
10. (original) The communications apparatus as claimed in claim 3, wherein the back pressure control is performed by predetermined Quality of Service (QoS) class units.
11. (original) The communications apparatus as claimed in claim 4, wherein the back pressure control is performed by predetermined Quality of Service (QoS) class units.
12. (original) The communications apparatus as claimed in claim 5, wherein the back pressure control is performed by predetermined Quality of Service (QoS) class units.
13. (original) The communications apparatus as claimed in claim 2, wherein back pressure control is performed in circuit units.

84206826_1

Serial No. 10/020,077
Page 5 of 11

14. (original) The communications apparatus as claimed in claim 3, wherein back pressure control is performed in circuit units.
15. (original) The communications apparatus as claimed in claim 4, wherein back pressure control is performed in circuit units.
16. (original) The communications apparatus as claimed in claim 5, wherein back pressure control is performed in circuit units.
17. (original) The communications apparatus as claimed in claim 2, wherein the predetermined state is determined at predetermined QoS class units.
18. (original) The communications apparatus as claimed in claim 3, wherein the predetermined state is determined at predetermined QoS class units.
19. (original) The communications apparatus as claimed in claim 4, wherein the predetermined state is determined at predetermined QoS class units.
20. (original) The communications apparatus as claimed in claim 2, wherein the predetermined state is determined at circuit units.

84206826_1

Serial No. 10/020,077

Page 6 of 11

21. (original) The communications apparatus as claimed in claim 3, wherein the predetermined state is determined at circuit units.

22. (original) The communications apparatus as claimed in claim 4, wherein the predetermined state is determined at circuit units.

23. (original) The communications apparatus as claimed in claim 2, wherein the processor has a local switch that supplies data received from the switch unit to an internal buffer corresponding to the appropriate circuit.

24. (original) The communications apparatus as claimed in claim 2, wherein:
the processor has a local switch equipped with a buffer that temporarily stores data received from the switch unit; and
the local switch itself has another local switch that reads the data from the buffer and supplies the data so read to an internal buffer of the appropriate circuit.

25. (original) The communications apparatus as claimed in claim 12, wherein a terminal unit is provided between the processor and the circuits, the terminal unit comprising:
a buffer provided at each circuit; and
a buffer capacity monitor that monitors a capacity of the buffer and controls the buffer so as to temporarily store data received from the switch unit.

84206826_1

Serial No. 10/020,077

Page 7 of 11

26. (currently amended) A communications apparatus for switching among different interfaces and comprising a switch unit, the switch unit comprising:

a main switch for switching data of a fixed length; and

an interface having a first buffer for an input of the main switch and a second buffer for an output of the main switch, wherein:

the switch unit is multiplexed; and

a working system receiving a back pressure control request from a passive system discards that back pressure control request; and

the passive system receiving another back pressure control request from the working system does not discard the another back pressure control request.

27. - 30. (canceled)

31. (currently amended) A communications control method for switching among different interfaces, the communications control method being performed by a communications apparatus that includes a switch unit and a processor connected to the switch unit processing data according to a predetermined protocol, the method comprising the steps of:

the switch unit switching data handled by the different interfaces of a fixed length after once buffering the data of a fixed length related to the data handled by the different interfaces into a first buffer; and

sending the switch unit outputting the switched data to the circuits after once buffering the switched data into a second buffer; and

84206826_1

Serial No. 10/020,077

Page 8 of 11

~~— sending the back pressure control request to another apparatus bypassing switching of the~~
~~back pressure control request when the buffering assumes a predetermined state prior to~~
switching wherein the processor includes a third buffer connected to the first buffer and a fourth
buffer connected to the second buffer, and the processor performs back pressure control on the
first buffer when the fourth buffer assumes a predetermined state.

84206826_1